

CLEAN VERSION OF THE SPECIFICATION AND ALL PENDING CLAIMS**In the Specification:**

(1) Please replace the Abstract of the Invention with the following:

Abstract of the Invention

Resist coated wafers are rapidly and uniformly cooled by a fluid that has been cooled through the Joule-Thompson effect. Fluid from a high pressure reservoir is vented into a chamber that contains the substrates. By varying the pressure difference between the reservoir and the chamber, the temperature of the cooling fluid entering the chamber can be controlled. By also controlling the flow rate through the chamber, the average temperature difference between the fluid in the chamber and the substrates may be limited, whereby more uniform cooling is obtained. While the chamber pressure is lower than that in the high pressure reservoir, the chamber pressure may still be substantially greater than atmospheric. An elevated chamber pressure raises the specific heat and residence time of the fluid in the chamber, which also promotes uniform cooling.

(2) Please replace the second full paragraph at page 9, lines 20-29, with the following:

Uniform cooling of the substrate may be facilitated by keeping the average temperature of fluid in the chamber comparatively close to the substrate temperature. This slows the cooling rate, allowing time for heat to disperse evenly. Reducing the temperature difference between the fluid in the chamber and the substrates may also reduce the size of temperature differences within the cooling fluid near the substrates. To realize this latter benefit, it is preferable that cooling fluid entering the chamber does not contact the substrates immediately. Rather, it is advantageous if the entering fluid flow is directed against a wall or a baffle 290, whereby the cooling fluid entering the chamber substantially mixes with the fluid already in the chamber before contacting the substrates.

(3) Please replace the paragraph beginning at page 7, line 27, and ending at page 10, line 2, with the following:

Venting fluid into chamber 180 and exhausting it through valve 200 causes convection within chamber 180, but it may be beneficial to increase convection within chamber 180, using a fan 160 for example. Increasing convection within chamber 180 increases heat transfer between the cooling fluid and substrates 190. Thereby, the rate of cooling is increased. If convection within chamber 180 is increased without increasing the rate of flow through chamber 180, uniformity of temperature within the cooling fluid increases, making the cooling process more uniform as well.
